

### Abstract

A steering angle sensor comprises a main rotor which can be rotated in a rotationally synchronous manner and which can be coupled to a steering column or to a steering wheel. The main rotor can be rotated about the rotational axis of the steering column. The steering angle sensor also comprises at least one additional rotor which can be driven by the main rotor, a first scanning unit which is used to scan the position of the rotational angle of the main rotor, and a second scanning unit which is used to scan the rotational angle of the additional rotor. The additional rotor can be rotated about the rotational axis of the steering column and can drive the additional rotor of at least one transmission element driven by the main rotor. A method for determining the absolute steering angle of a steering wheel is also disclosed.